// EXPERT PRO / INTEGRA PRO

Compact Flash

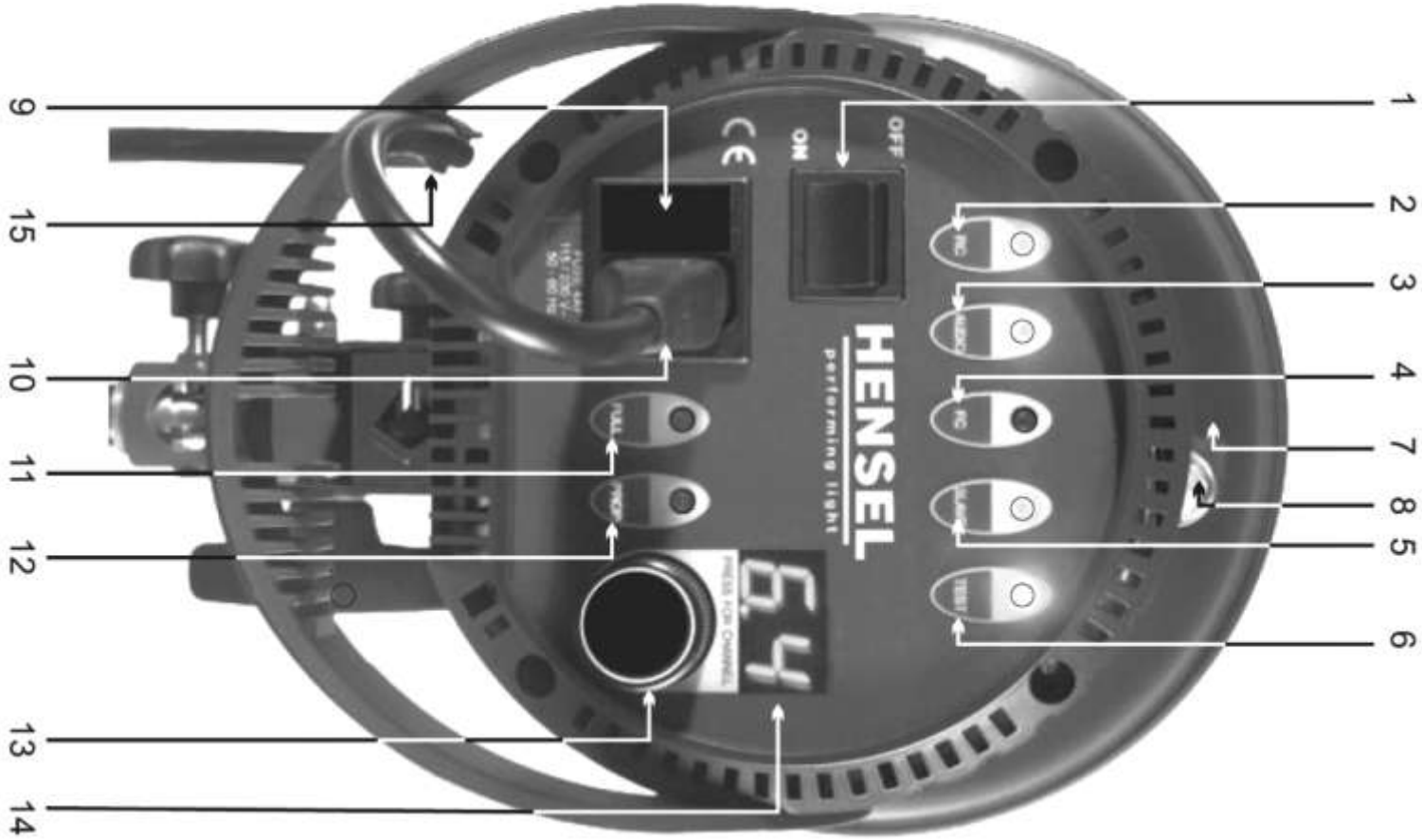
USER MANUAL //

WWW.HENSEL.DE

HENSEL
performing light

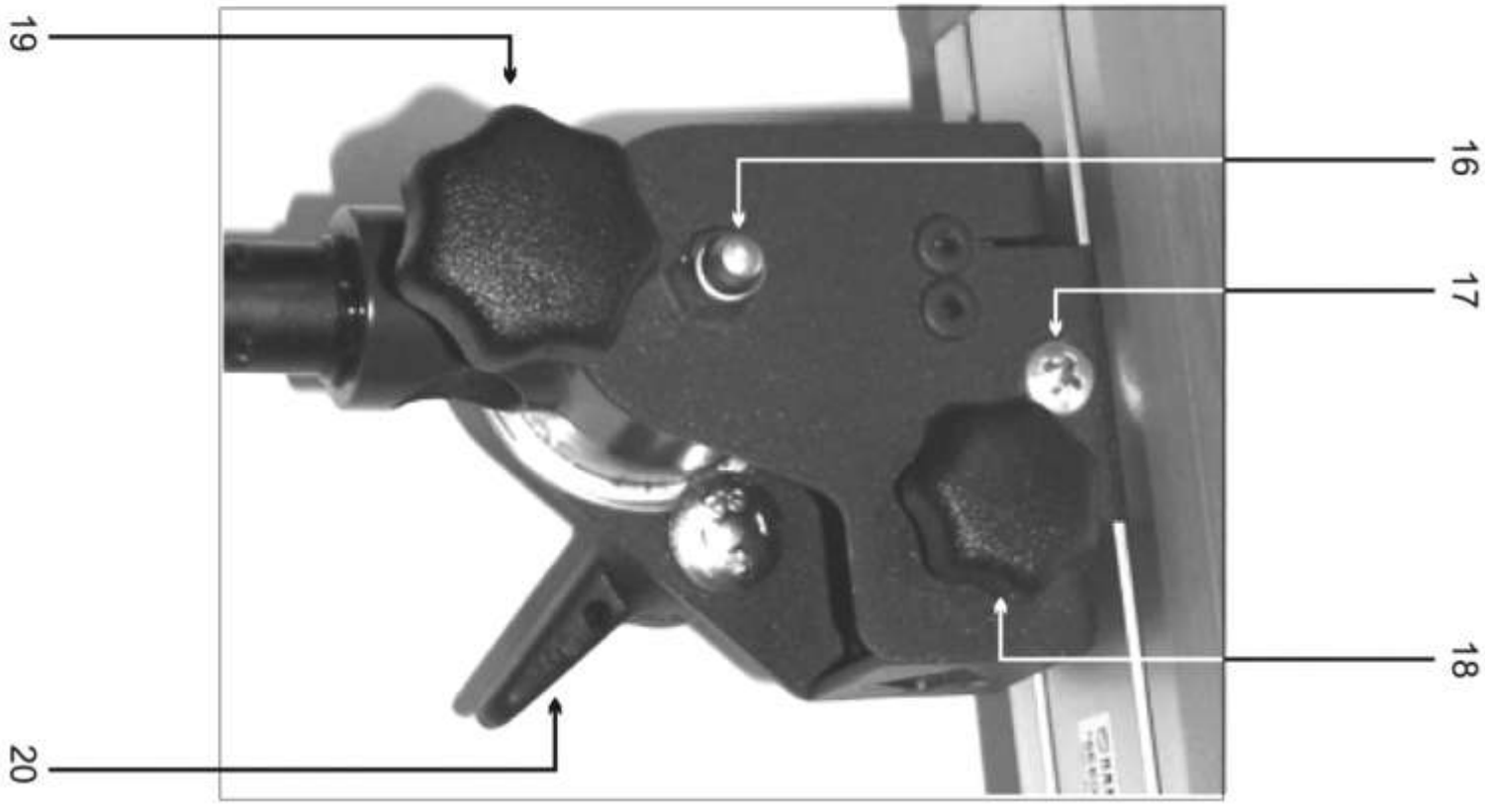
EXPERT PRO / EXPERT PRO PLUS Front Panel

INTEGRA PRO / INTEGRA PRO PLUS Front Panel



EXPERT PRO / EXPERT PRO PLUS Tilting Head

INTEGRA PRO / INTEGRA PRO PLUS Tilting Head

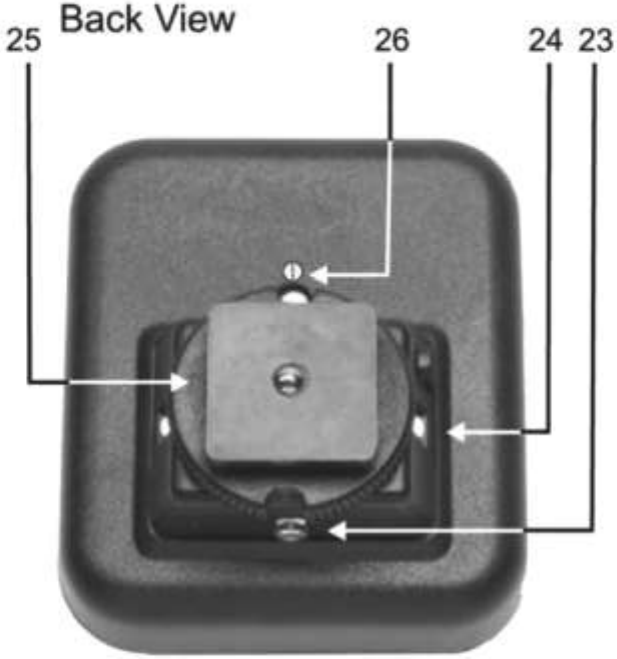


Strobe Wizard Plus for radio flash triggering and power control

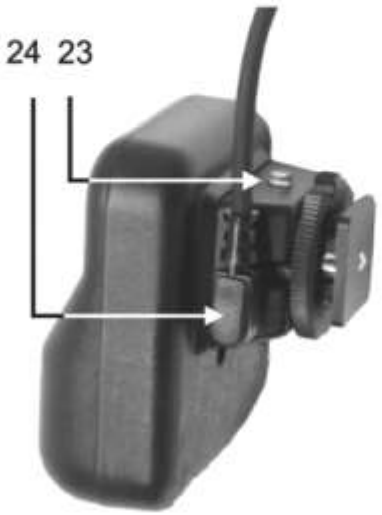
Radio Transmitter

Front Panel

Back View



Side View



Channel selector

Radio Receiver

Front Panel

Battery compartment

Channel selector

HENSEL-VISIT International GmbH
Robert-Bunsen-Str. 3
D-97076 Würzburg-Lengfeld
GERMANY

Tel.: +49 (0) 931 / 27881-0
Fax: +49 (0) 931 / 27881-50
E-Mail: info@hensel.de
Internet: http://www.hensel.de

1 Introduction

Dear photographer,

with buying a HENSEL flash system, you have purchased powerful equipment of high quality.

So that you are able to work successfully and productively with this system for many years, we are giving you some advice on the use of this high tech product. Only by observance of the information given you secure your warranty, prevent damage and prolong the life of the equipment.

HENSEL has taken great care to manufacture a secure and high quality flash system under inclusion and observance of all current regulations. Strict quality controls secure our quality requirements even in mass production. Please take your part in this and treat the equipment with due care - your reward will consist of excellent pictures.

If you should have any questions on the use, then feel free to ask us at any time.

We wish you success and „good light".

HENSEL-VISIT International GmbH

User manual – date of revision: 2011-03

Technical data are subject to change. No guarantee for misprints. The listed values are guide values and should not be understood as binding in a legal sense. The values can differ due to tolerances in used components.

2 Table of contents

1 Introduction 5
2 Table of contents 6
3 General safety regulations 7-8
4 Standard delivery 9
5 Technical data 10
6 Overview of controls 11
7 Starting up 12
Safety hints 12-13
Acclimatizing 13
Positioning 13
Fixing of the glass dome 13-14
Accessories 14
Mains connection 15
Fuses 15
Overheating 15
8 Operation 16
Synchronization (Flash triggering) 16-17
Flash power control 17
Flash readiness 17
APD system 17
Modeling lamp 18
Flash counter 18-19
9 Radio control unit 19
Strobe Wizard Plus 19-22
FREEMASK transmitter (optional) 22-24
10 Maintenance 24
Replacement of fuses 24
Replacement of modeling lamp 24-25
Replacement of flash tube 25
Regular inspection 26
Return to customer service 26
11 Disposal 26
12 Accessories 26-27
13 Customer service 27
Declarations of Conformity 28-29

3 General safety regulations

Compact flash systems store electrical energy in capacitors by applying high voltages. These form a source of danger, which must be carefully excluded. Besides general rules on handling electrical appliances, the following safety measurements must be observed. Therefore read and comply the safety hints (also see paragraph *Starting up*) within the user manual **before** turning the appliance on.

Proper use

The present compact flash unit is meant for studio use of professional photographers. Its task is to provide electrical energy for HENSEL flash lighting.

Improper use

The appliance may not be used for any other purpose than that described above, especially not for other electrical appliances.

Halogen lamps and flash tubes generate high pressure during operation and can therefore burst. For this reason it is a must to protect pilot and flash light with the supplied, correctly installed HENSEL protection glass dome. The glass dome is available in different versions. The use of the glass dome changes the color temperature.

- Contact with the capacitor voltage is perilous, and therefore opening of the case of Expert / Integra Pro compact flash units and repairs must only be made by authorized customer service.

- Expert / Integra Pro compact flash units are equipped with a user-replaceable flash tube. Exchange of flash tube and modeling lamp must only be per-formed with the appliance turned off, unplugged from the mains and discharged.

- Compact flashes must only be used on supply lines (mains) with working protective conductor (earth line).

- Do not route cables across the studio floor if possible, so that damage is excluded. If routing across the studio floor cannot be omitted, then it must be ensured that vehicles, ladders, etc. do not damage cables. Damaged cables and cases must be replaced immediately by customer service.

- Ventilation slots of compact flashes must be kept free during operation and sufficient air supply must be ensured. Do not stick any objects into ventilation slots or synchronization sockets. Do not deposit any objects (tools, coffee cups, etc.) on the flash unit.

- Flash systems must not be used in environments with explosion hazard. Flammable materials, like furnishing fabrics, paper, etc. must not be stored in the immediate vicinity of compact flash units to prevent fire hazards.

- Compact flash units must be protected against humidity and spray water.

- Do not connect accessories from other manufacturers, even if they use the same or similar connectors.

- Flash units – hanging from pantographs or ceiling – must be doubly secured against falling down.

- Do not flash into eyes at short distances (smaller than 5 m) because this can lead to eye damage. Do not look directly into the flash reflector; the flash lamp could be triggered inadvertently.

- Regularly air closed rooms to prevent build-up of inadmissible ozone concentrations, which can occur due to the use of high-powered flash systems.

- During work in the studio generating much dust, the appliance must be covered with suitable dust protection (not during operation).

4 Standard delivery

All units of the Expert / Integra Pro series come with:

- Flash tube, single coated, user-replaceable
- Protection glass dome, clear, uncoated
- Tilting head with integrated umbrella holder
- Cable set: power and sync. cord
- Transportation protection cap

Integra Pro series are identical to Expert Pro series, but with Multivoltage technology. Expert Pro series are only for 230V operation.

Plus Versions of Expert / Integra Pro series offer additional features like a built-in radio control receiver, an illuminated front and a shiftable tilting head. In this manual, these additional features are indicated by *.

5 Technical data**

Series	**Expert / Integra Pro**		
Model type	**250**	**500**	**1000**
Values attained at:	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
Rated energy:	250 J	500 J	1000 J
Aperture at 100 ASA, t 1/60, 1 m distance, 12'' reflector:	f 45 7/10	f 64 7/10	f 90 7/10
Flash duration in sec. t 0,1:	1/600	1/500	1/600
t 0,5:	1/1800	1/600	1/2000
Recycling time 100% power:	1,2	2,2	2,1
In sec. 1/32 power:	0,3	0,5	0,45
Flash tube:	U-flash tube, for plug-in, single coated		
Power adjustment:	in 1/10 f over 6 f adjustable (1/1 … 1/32)		
Modeling lamp max.:	300 W / G 6,35 halogen lamp		
Modeling light adjustment:	FULL, OFF and PROP mode over 6 f		
Features:	glass dome (clear, uncoated), plug-in coated flash tube, fan, tilting head (fix and adjustable*, resp.), umbrella holder, transportation protection cap, built-in receiver*, illuminated front panel*		
Fuse Expert Pro:	2 AF	2 AF	2 AF
Integra Pro:	4 AF	4 AF	4 AF
Mains connection Expert Pro:	230 V~	230 V~	230 V~
Integra Pro:	Multivoltage	Multivoltage	Multivoltage
Weight (kg):	2,75	2,87	3,90
Measurements in cm without handle (L x B x H):	33 x 15 x 23	33 x 15 x 23	39,5 x 15 x 23
Code No. Expert Pro Plus):	8310E (8310)	8330E (8330)	8340E (8340)
Integra Pro (Plus):	8814E (8814)	8815E (8815)	8816E (8816)
Expert Pro Plus FREEMASK:		8330FM	
Integra Pro Plus FREEMASK:		8815FM	

**: Technical changes reserved.

6 Overview of controls

Compact Flash Unit – Controls Front Panel -

1 ON: main switch ON / OFF
2 RC*: remote control switch and ON indicator
3 AUDIO: acoustical ready signal and ON indicator
4 FC: flash check switch and ON indicator
5 SLAVE: slave switch and ON indicator
6 TEST: Manual flash release with ready indicator
7 Sync socket
8 Slave
9 Fuse 2 A (Expert Pro), 4 A (Integra Pro)
10 230V~/ 50-60 Hz resp. 115V~/ 60 Hz:
Mains connector
11 FULL: modeling lamp operation mode and ON indicator
12 PROP: modeling lamp operation mode and ON indicator
13 flash power control switch
14 LED display

Tilting head - components -

15 Cable fixation
16 Pre-friction*
17 Shifting of the tilting head to balance heavy loads*
18 Clamping screw to hold umbrellas
19 Locking screw for attaching unit to a stand
20 Wing nut for adjusting the angle of inclination

Radio transmitter - controls -

21a Flash power down and modeling light options*
21b Flash power up button*
22 Channel selector for 3 channels / 'All' option (sliding switch)
23 Test button for flash triggering
24 Socket for sync cable, Ø 2.5 mm
25 Locking screw for mounting to the hot shoe of the camera
26 Gap for opening the battery compartment

Radio receiver - controls -

27 Channel selector for 3 channels (sliding switch)
28 LED green (sync voltage applied)
29 LED red (low battery)
30 Interface socket
31 Gap for opening the battery compartment

*: Additional features only available for the respective Plus version.

7 Starting up

Safety hints for operation with compact flash units

To avoid damage to the flash tube, mount reflectors and lightformers (softboxes etc.) before use and turning on the unit. Do not move compact flashes around while they are operating. Turn the appliance off for each change of reflectors or to move the unit to another location.

Caution:
Reflectors, speedrings and other accessories heat up during longer operation. To avoid injuries, handle with isolating cloth or wait until parts have cooled down.

A damaged flash tube is extremely dangerous because the electrically charged electrodes are exposed and touching must be avoided; the unit must be switched off and disconnected from the mains outlet immediately. The capacitors inside may still be charged and dangerous high voltage can still be present at the damaged flash tube electrodes (Replacement see page 39, *Maintenance*)

Assembly

When mounting to a ceiling system or a pantograph, the suspended compact flash has to be doubly secured from falling down or dropping. This is done by tightening the safety screw (not included in the standard delivery) into the thread of HENSEL tilting head.
Due to the existing safety regulations, it is, however, necessary to use a safety rope (Code No. 769) for further security.
The safety rope has to be led through the handle of the compact flash and then secured by looping through the bracket on the pantograph or the eyelet on the carriage.

Heating

Due to the modeling lamp and flashlight, each compact flash unit emits heat. This can heat the parts of the unit up to a dangerous level. Therefore make sure that the

flash unit is located far enough from inflammable props to avoid inflaming them.

Take care for sufficient air supply and make sure that ventilation slots of compact flash units are kept free. Do not operate flash units unattended. The modeling light should never be used for lighting up the studio but only as assistance when focusing or determing the light guiding and shadow details of the flash.

Acclimatizing

When moving the flash unit from one climatic zone to the next, the appliance should stand in the room, in which it will be operated, for some time before starting it up. This prevents possible surface leakage currents due to con-densing water.

Positioning

Expert / Integra Pro compact flash units come with a tilting head. The unit can be attached to a stand or pantograph by using one of the two holes and safely secured by fastening the locking screw **19**. The angle of inclination can be adjusted using the wing nut **20**. In the hole above the wing nut an umbrella can be inserted and fastened using the clamping screw **18**. To hold even heavy loads it is advisable to find a new optimal position for the tilting head within the gliding rail. For doing this, unscrew the Philips screw **17** and slide the tilting head within the rail until the weight is balanced and finally tighten the screw. An additional valuable feature for hand-ling heavy weights is the pre-friction that ensures a decelerated and smooth movement of the tilting head. If required, the friction can be varied by turning the hexagon nut **16** to the left or to the right. The features **16** and **17** are only available for the respective Plus versions.

19

20

18

17

16, 17

Fixing of the glass dome

Attention:

The glass dome should only be fixed or removed after having switched the unit off and unplugged from the mains outlet. Please take care not to damage either the flash tube or the modeling lamp (danger!).

The glass dome is fixed by means of the three pre-mounted springs. For doing this, please tilt the glass dome slightly and insert it into one of the three springs. Then press the glass dome gently into the other two springs until it has completely clicked in. For removing the glass dome, please tilt it slightly again so that it will slip out easily of the two fixing springs. Then gently loose the glass dome from the remaining third spring and remove it from the fixing device.

Accessories

All HENSEL reflectors and HENSEL softboxes of series EHT (adapter Ø: 10 cm), accessories included, may be attached to the Expert / Integra Pro compact flash; also umbrellas and Softstars.

Assembly of reflectors and softboxes

For fixing reflectors or softboxes to the compact flash unit, please first of all open the holding clamps. For doing this, please tension the reflector lever laterally as far as it will go against the spring tension. While doing this, the hold-ing clamps will open. Now attach the accessory part even and precisely to the unit. Please do not tilt. By releasing the lever, the holding clamps will enclose the accessory part completely.
For loosening the accessory, please hold tight the accessory part (*Attention - it could be hot!*) and tension the lever again as described above.
In any case please make sure not to damage either the flash tube or the modeling lamp (danger!).

Assembly of umbrellas and Softstar

20, 18

An umbrella holder is integrated in the tilting head that allows for the connections of various umbrellas by using a strong gripping spring mechanism. The umbrella is in-serted into the hole above the wing nut **20** and fastened by tightening the clamping screw **18**.

Mains connection

Attention:
Before connecting the compact flash unit to the mains outlet, make sure that the mains voltage matches the information given on the type label of the compact flash. The type label can be found on the bottom of the appliance. All Expert Pro compact flash units are only for 230V/ 50-60 Hz operation.
The Integra Pro series comes with multivoltage technology, i.e. the compact flash adjusts itself for different main voltages.

10, 15

The provided power cable has to be led through the handle, then attached to the mains socket **10** and connected to the mains outlet. Use the cable fixation **15** for allowing unhindered tilting of the unit.

Compact flashes must only be connected to mains outlets with ground connection.

Fuses

10 A

Outlets in the building
Minimum requirement **10 A** fuse outlets

9:
2 AF

4 AF

Fuses of the compact flash unit
The fuse **9** is a general fuse for the compact flash unit and the modeling lamp. All units of the Expert Pro series (only for 230V operation) come with a fuse 2 A fast (***2 AF***). All units of the Integra Pro series (multivoltage technology) come with a fuse 4 A fast (***4 AF***).
The specification of the fuses mentioned above is valid for operation with modeling light 300 W halogen.

For more information, please refer to page 38, *Replacement of fuses*.

Overheating

14:
<E1>

All Expert / Integra Pro units are equipped with a fan to avoid overheating with fast flash sequences, which could cause damage to the flash tube and the compact flash unit. Nevertheless, if overheating occurs, the error <E1> is displayed on the LED **14**. After a break for

cooling down, the appliance is ready again for operation.

8 Operation

Synchronization (Flash triggering)

Synchronization by cable

7: SYNC

The compact flash unit is connected to synchronization socket **7** to the camera using a synchronization cable with 6,3 mm phone jack. The synchronization circuit is made up of state-of-the-art semiconductor technology and enables secure triggering of the flash even with older cameras with mechanical contacts. Due to the many different electronic circuits in cameras for controlling synchronization, we cannot take any liability for possible damage to cameras triggering flashes. Please contact the camera manufacturer before using an unusual camera.

Synchronization by slave

8

5: SLAVE

The built-in slave **8** can trigger the compact flash unit. Triggering is then effected by an “incoming” flash, which was emitted by another flashlight. This mode of operation is switched on using switch **5** and displayed by the yellow light of the SLAVE ON indicator.
The slave is an impulse photocell. It can only operate when the triggering flash has a higher f-stop than the ambient light. Please be aware that the ambient light that strikes the slave may never be too strong. If this cannot be avoided, please switch the slave off by pressing switch **5** and release the flash by cable or by radio signal.

Synchronization by radio control system

For all units of the Expert / Integra Pro series the HENSEL radio flash trigger system Strobe Wizard Plus is available as accessory (set, transmitter and receiver). The remote control allows for flash triggering via radio signal. The respective Plus versions are equipped with a built-in receiver.

With the transmitter available as accessory, flashes can be triggered and in addition features for flash power and modeling light adjustment are offered.

7:
SYNC
2:
RC

For operation with Expert / Integra Pro Series units the radio receiver is attached to the sync socket **7** of the compact flash. The respective Plus versions have a built-in receiver that needs to be activated by pressing the RC switch **2**.
The radio transmitter is attached to the camera using the synchronization cable or by mounting it onto the hot shoe of the camera. Three channels can be selected. The selected channel of the transmitter and receiver must correspond to each other. Flashes can be triggered by pressing the TEST button or by releasing the camera shutter.
For a detailed description of the radio control system, please refer to chapter 9.

Test Flash

6:
TEST

By pressing the button **6** test flashes can be released.

Flash power control

13, 14

The desired flash power can be set in 1/10 f-stops over a range of 6 f using power control switch **13**. The setting is shown on the LED display **14** presenting values ranging from 5.0 (minimal flash power) to 10.0 (maximum flash power).

Flash readiness

Flash readiness of the compact flash unit is shown by

READY
- green light of the READY lamp above TEST button **6**

FC
- modeling lamp turned on when Flash Check mode is activated (switch **4**)

AUDIO
- acoustical signal, when AUDIO **3** is switched on.

APD system

In case of reducing the flash power, the stored energy will be discharged by APD system (Automatic Power Drop). No flash will be triggered. After switching off, the compact flash units will be discharged automatically.

6:
TEST

It is also possible to reduce the stored energy by simply triggering a TEST flash by pressing button **6**.

Modeling lamp

11, 12:
FULL
PROP

The operation mode for the modeling light can be selected by pressing the buttons **11** or **12**. By pressing the FULL button **11,** the maximum modeling light output is set. By pressing the PROP button **12**, the modeling light output is proportional to the selected flash power. When the flash power is reduced, the modeling light output will be reduced by the same increments. The selected operation mode for the modeling lamp is indicated by the respective ON indicator. The modeling lamp is switched OFF when no ON indicator lights up.

Dim mode

13, 14

The dim mode is intended to prolong the life span of the modeling lamp. If the modeling lamp level is adjusted to FULL or to PROP between 10.0 and 9.1, the output is dimmed automatically by approximately 1 f-stop after having stopped working with the flash unit for longer than 35 minutes (default value). Pressing any button you like switches the modeling light to the previously adjusted un-dimmed level. If required, this default value can be changed by entering a value from 5 minutes up to 95 minutes. For this purpose press button **13** twice and enter the new value shown on display **14**. Wait for 3 seconds and the display changes to the flash power setting.

Flash Check

4:
FC

If this mode is switched on by pressing the FC button **4**, the modeling lamp is turned off after a flash and will turn on after recharging to the adjusted power level. This shows correct charge as well as readiness to flash. The flash check mode guarantees that the flash heads have triggered when more than one flash unit is used.

Flash counter

3:
AUDIO
14

The data is read out of the flash counter by pressing the AUDIO button **3** for approximately 3 seconds. the number of flashes triggered appears on the LED display **14** as a two-digit number:

the first digit shows the hundreds, the second digit the tens. The units are truncated:

- display 05 → number of flashes triggered between 50 and 59
- display 15 → number of flashes triggered between 150 and 159

13

3:
AUDIO

Reset of the flash counter is done by pressing the flash power control switch **13**. The menu can be left by repeated press of the AUDIO button **3**. After 5 sec. the menu closes automatically.

9 Radio Control System

Strobe Wizard Plus Set (Code 3952)

Proper use – improper use

The transmitter of the HENSEL radio flash trigger and power control system Strobe Wizard Plus is used for triggering flashes, adjusting the flash power and switching the modeling lamp between FULL/OFF/PROP in HENSEL flash units with built-in receiver (Plus versions of the Expert / Integra Pro series) via radio signal.
For all other units of the Expert / Integra Pro series not equipped with a built-in receiver, *HENSEL-VISIT* offers the usage of an external receiver as accessory. In connection with the radio transmitter flashes can be triggered, but additional features like flash power adjustment and changing modeling light options are not available.
Every use of the equipment that differs from its prescribed use is prohibited. In particular, controlling of electronical items or machines other than described above is prohibited.

Scope of delivery

The radio transmitter (Code No. 3950) as well as the set of radio transmitter and receiver (Code No. 3952) comes with a synchronization cable with 2,5 mm synchronization plug.

Safety instructions

Changing this unit is strictly prohibited. The housing is splash-proof but not watertight. Therefore protect the equipment from humidity. The operation during rain is not recommended because over the years moisture might ingress into the housing causing damage to the electronics.

Start-up and channel selection – receiver –

7: SYNC

1, 28

27

2: RC

13, 14

For operation with compact flash units of the Expert / Integra Pro series without built-in receiver the external receiver is to be attached to the synchronization socket **7** of the compact flash unit. After switching the unit ON using the main switch **1**, the green LED **28** of the receiver is flashing. For channel selection, the lateral sliding switch **27** of the receiver is used. In total, 3 working channels are available. For channel setting, please refer to the figure on page 1 of this manual. By pressing the RC button **2** the built-in receiver of the Plus versions of the Expert /Integra Pro series is switched on. The channel can be selected by pressing the flash control switch **13** once. By turning the knob, channels from 1 to 3 can be selected as shown on the LED display **14**. After 3 seconds delay the channel is set and the display changes to the flash power setting.

Start-up and channel selection – transmitter –

24

22, 25

The radio transmitter has no built-in main switch for switching the unit ON. The transmitter is to be connected to the camera either by attaching it to the hot shoe of the camera or by connecting the camera to the synchronization socket **24** using the provided synchronization cable. If the transmitter is connected to the hot shoe the unit must be tightened carefully using the locking screw **25**. The working channel can be selected using the sliding switch **22**. There are 3 working channels available and the option ‘All’.

Flash triggering

23

Depending on the working channel selected the flash can be triggered by pressing the ‘TEST’ button **23** or by releasing the camera shutter.

In case of choosing the ‘All’ option on the transmitter, all flash units are triggered in-dependently from the working channels selected.

Additional features for Plus versions:
Flash power adjustment and changing modeling light options

21a, 21b

The buttons **21a** and **21b** allow further options for HENSEL flash units with a built-in receiver. A single click on the respective button reduces and increases the flash power by 1/10 f-stop. Pressing button **21a** for longer than 3 seconds switches the modeling light from FULL to OFF and PROP, respectively.

30

The receiver is equipped with an interface socket **30** for HENSEL power packs.

Maintenance

The HENSEL remote control system Strobe Wizard Plus is almost maintenance-free. Because of the low energy consumption of the transmitter a battery lifetime of 1 to 2 years can be assumed depending on the degree of utilization.

26

The battery of the radio transmitter can be exchanged by unscrewing screw **26** at the bottom of the unit. This provides access to the electronics and the battery can be removed from the clips and exchanged. Before reinstallation of the new battery, the polarity must be observed. The positive pole should be pointed toward the Power Down **21a** button.

21a

29

When an exchange of the battery of the external radio receiver is required, the red LED **29** turns on. Opening of the battery compartment is done by means of a coin, inserted into the lateral slot. The batteries can be removed from the clips and exchanged by three new AA batteries under observation of the polarity.

Technical data*	Transmitter	Receiver
Type: Code No.:	T4 / 6V 3950	 3951
Sync socket:	2,5 mm jack plug, Mono	----------
Sync. voltage / Sync. current:	3V / < 1mA for 5 µs	</= 56 V / ----------
Switching ON/OFF	----------	by applying sync voltage
Channels:	3, selected by sliding switch	
Sync plug:	----------	6,3 mm jack plug, plus pole front
Serial port:	----------	mini DIN socket 8 pol.
Shutter time for synchronization:	1/250 s	
Dimensions in cm [inch] (width x length x height):	5,5 x 6,3 x 4,8 [2.2 x 2.5 x 1.9]	6,5 x 3,7 x 14,1 [2.6 x 1.5 x 5.6]
Weight (no battery): Weight (with battery):	 53 g	84 g 157 g
Type of battery:	28L / 6V, 1 pc.	AA, 3 pcs.
Battery life:	1 - 2 years	approx. 6 months
Range:	> 40 m (131 feet) free visibility	
Frequency:	433,92 MHz	

*: This product conforms to the radio standards ETSI EN300220 and FCC15.231

FREEMASK (optional)

Channel selection:

An additional function is available, when selecting the channel (click flash energy regulator 13 once): the channels F1, F2, and F3 can be set additionally, besides the channels C1, C2, and C3.
When using the compact flash units for normal lighting of a set with the channels C1, C2, and C3, you can trigger the flash via radio remote, adjust the modelling light, and set the flash power via radio remote control, just like you have been used to so far.

The FREEMASK application for the second group of flash units does not allow you to switch the modelling light or the flash power via radio remote. You can only use the channels F1, F2, and F3 to differentiate between up to three different, separate work stations.

Channel selection for one work station:
Please set all flash units used to light the set to C-channels in order to trigger the automatic, synchronized flashing of these units when using the FREEMASK application. The FREEMASK compact flash units used for lighting the mask have to be set on channels F1, or F2, or F3. The slave of the FREEMASK compact flash units must be turned off to avoid their triggering by the first flash group. The slaves of all other flash units can be turned on. Exclusion: SPEED MAX. They offer too short recycling times.
The Free mask transmitter can be set to channel ALL.

Channel selection for several work stations:
If several, separate work stations are set up within the range of the radio remote control, the following configurations can be selected: matching channels have to be assigned to all flash units of both work groups and of the FREEMASK transmitter (e.g. C1 + F1 for work station 1, and C2 + F2 for work station 2, and C3 + F3 for work station 3).

Camera settings:
If your camera supports these settings, use the following settings for the FREEMASK application:

1. Speed of picture series to fastest setting.

2. Number of exposures to two.

This ensures the setting to highest picture frequency with two succeeding exposures (depending on camera).
The transmitter will then trigger the flash group 1 (C1, C2, and C3) for the set lighting and the flash group 2 (F1, F2, and F3) for the mask lighting, during the two camera exposures.
At present, all cameras are supported with picture series speeds from 3 pictures per second to (in theory) 500 pictures per second.

The transmitter automatically defaults to one picture after 200 ms. This is not dependent on the actual number of exposures. This ensures that the set lighting is always the first exposure and the mask lighting the second exposure when using the FREEMASK application.

10 Maintenance

The Expert / Integra Pro compact flash series is in need of little maintenance by the user. The unit should be dry cleaned from dust from time to time. Before cleaning separate the unit from the mains outlet.

<u>Caution:</u> Under no circumstances is any part of the equipment to be opened. The equipment is not user-serviceable and there is dangerous high voltage. In the event of difficulty notify your dealer.

Replacement of fuses
In case of a broken fuse 9 replace fuse only when the unit is switched off and separated from the mains outlet.

<u>Attention:</u>
Never repair or bridge fuses. Only use "fast" fuses with the required value:

<u>Fuse for operation with modeling light 300W / G6.35 halogen</u>

Expert Pro series: 2 AF
Integra Pro series: 4 AF

Only use fuses in accordance with EN 60127-2/1 or respectively IEC 127-2/1. A wrong fuse may cause a bursting of the halogen modeling lamp.

Replacement of modeling lamp
Replace the modeling lamp only when unit is switched off and unplugged from the mains outlet.
Make sure that the modeling lamp is protected by the specified fuse (see paragraph *Replacement of fuses* above).

Use only halogen lamps as modeling light with the maximal light output specified as follows:

Expert Pro series: 300W/G6.35/230V (Code 128)

Integra Pro series: 300W (G6.35/115V (Code 1280) and 300W/G6.35/230V (Code 128), resp.

Make sure that the modeling lamp for units of the Integra Pro series corresponds to the mains voltage.

Wait until the modeling lamp has cooled down, and then remove the glass dome carefully from the unit by pulling it out of the spring mechanism (see page 30) and moving it straight away *without touching modeling lamp or flash tube (danger!)*. Handle halogen lamp with care because of the high pressure inside. Pull out halogen lamp and re-place the modeling lamp with a new one.

Avoid touching the halogen lamp with your fingers; this causes a higher risk of bursting of the halogen lamp.

Replacement of flash tube

All unit types of Expert / INEGRA Pro are fitted with a user-replaceable flash tube.

For replacement of flash tube switch the unit off, separate it from the mains outlet and wait for at least 15 minutes.

Then remove the glass dome from the head carefully by pulling it out of the spring mechanism (see page 30) and moving it straight away from the head *without touching modeling lamp or flash tube (danger!).*
Handle flash tube with care because of the high pressure inside.

<u>Caution:</u>

In case of a damaged flash tube glass the electrodes of the tube must not be touched in any case! In this case it is a must to use isolated pliers for pulling out the flash tube!

First unwind the ignition cable from the connection pin or the ignition. Then pull out flash tube and replace it with a new one. Finally connect the ignition cable.

You must make sure that the appropriate flash tube is used.
Please order from HENSEL-VISIT:
Flash tube, user-replaceable, single coated for
Expert / Integra Pro 250 / 500, Code No. 9450401 or
Expert / Integra Pro 1000, Code No. 9450420

Regular inspection
National safety regulations require regular inspection and maintenance of electrical systems and appliances. Com-pact flash units and accessories must be checked regularly for safe operation. Yearly inspection of the appliances serves the safety of the user and protects your investment in the system.

Return to costumer service
To achieve a maximum protection of the unit sending it in for service, the original packaging should be kept.

11 Disposal

Packaging of the compact flash unit must be separately disposed of and recycled. Worn out and broken appliances must be disposed of by electronics recycling.

12 Accessories

Glass Domes

Code No. 9454638:	*clear, uncoated*
Code No. 9454637:	*clear, single coated*
Code No. 9454639:	*frosted, uncoated*

Flash tube, user replaceable
Code No. 9450401:
U-Tube, single coated (series 250/500)
Code No. 9450420:
U-Tube single coated (series 1000)

Reflectors and Softboxes
with small accessory adapter diameter (10 cm)
for series EHT/Expert/CONTRA

Umbrellas

Strobe Wizard Plus
for radio flash triggering and radio control
Transmitter type T4/6V, Code No. 3950;
Receiver, Code No. 3951;
Set of Transmitter and Receiver, Code No. 3952

13 Customer service

For service ask you local dealer.

Works customer service

HENSEL-VISIT International GmbH
GERMANY
- service department -
Robert-Bunsen-Str. 3
D-97076 Würzburg

Phone: +49 (0)931/27881-0
Fax: +49 (0)931/27881-50
Internet: www.hensel.de
E-Mail: info@hensel.de

International service addresses

are available at **www.hensel.de**

Declaration of Conformity

for Electromagnetic Compatibility and Safety

Manufacturer:	HENSEL Studiotechnik GmbH & Co.KG Robert-Bunsen-Str. 3 97076 Würzburg Germany
Owner of Certification:	HENSEL Studiotechnik GmbH & Co.KG Robert-Bunsen-Str. 3 97076 Würzburg Germany
Test Report:	of April 27, 2010
Product:	**EXPERT Pro 250, INTEGRA Pro 250, EXPERT Pro 500, INTEGRA Pro 500, EXPERT Pro 1000, INTEGRA Pro 1000**
Description:	**Emission and Interference Resistance**
Standards:	EN 61000-6-2:2005 EN 61000-6-3:2007

This declaration of conformity is made by the above mentioned manufacturer according to article 10, paragraph 1, of the governing EU- directives 2004/108/EC referring to electromagnetic compatibility and safety for bringing the statutory instruments of the Member States into lines with each other. This declaration does not make any statement according to requirements of other provisions concerning the electromagnetic compatibility and safety.

Description:	**Low Voltage Directive**
Standards:	EN 60065:2002+A1:2006+Cor.:2007+A11:2008 EN 60598-1:2008+A11:2009 EN 60598-2-9:1989+A1:1994

This declaration of conformity is made by the above mentioned manufacturer according to article 10, paragraph 1, of the Governing EU- directives 2006/95/EC referring to electrical items for usage within specified voltage limits.

This declaration of conformity is the result of testing samples of the products submitted, in accordance with the provisions of the relevant specific standards.

Date: April 27, 2010

Manufacturer

E. Stumpf
- Managing Director -
HENSEL Studiotechnik GmbH & Co.KG

Declaration of Conformity

for Radio and Telecommunication Terminal Equipment, Electromagnetic Compatibility and Safety

Manufacturer:	HENSEL Studiotechnik GmbH & Co.KG Robert-Bunsen-Str. 3 97076 Würzburg Germany
Owner of Certification:	HENSEL Studiotechnik GmbH & Co.KG Robert-Bunsen-Str. 3 97076 Würzburg Germany
Test Report:	of April 27, 2010
Product:	**EXPERT Pro 250 Plus, INTEGRA Pro 250 Plus, Integra 250 Plus** **EXPERT Pro 500 Plus, INTEGRA Pro 500 Plus, Integra 500 Plus** **EXPERT Pro 1000 Plus, INTEGRA Pro 1000 Plus, Integra 1000 Plus**
Description:	**Radio and Telecommunication Terminal Equipment**
Standards:	EN 300220-2 V 2.1.2

This declaration of conformity is made by the above mentioned manufacturer according to article 3, of the governing EU- directives R&TTE1999/5/EC referring to Radio and Telecommunication Terminal Equipment for bringing the statutory instruments of the Member States into lines with each other. This declaration does not make any statement according to requirements of other provisions concerning the electromagnetic compatibility and safety.

Description:	**Emission and Interference Resistance**
Standards:	EN 301489-1 V 1.8.1 EN 301489-3 V 1.4.1

This declaration of conformity is made by the above mentioned manufacturer according to article 10, paragraph 1, of the governing EU- directives 2004/108/EC referring to electromagnetic compatibility and safety for bringing the statutory instruments of the Member States into lines with each other. This declaration does not make any statement according to requirements of other provisions concerning the electromagnetic compatibility and safety.

Description:	**Low Voltage Directive**
Standards:	EN 60065:2002+A1:2006+Cor.:2007+A11:2008 EN 60598-1:2008+A11:2009 EN 60598-2-9:1989+A1:1994 EN 50371:2002

This declaration of conformity is made by the above mentioned manufacturer according to article 10, paragraph 1, of the Governing EU- directives 2006/95/EC referring to electrical items for usage within specified voltage limits.

This declaration of conformity is the result of testing samples of the products submitted, in accordance with the provisions of the relevant specific standards.

Date: April 27, 2010

Manufacturer

E. Stumpf
- Managing Director -
HENSEL Studiotechnik GmbH & Co.KG

HENSEL

performing light

WWW.HENSEL.DE